

REMARKS

Claims 1-8 are pending in the application. Claims 2 and 7 are cancelled. Claims 1, 3, 4, 6, and 8 are amended, and Claims 9-17 are added. The new claims and claim amendments are fully supported by the application as filed and do not introduce new subject matter. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 and 7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Fuji et al. (*Indoor Multi Base Station System with Simultaneous Transmission using OFDM Array Antenna*). Claim 1 is amended to include elements of Claims 2 and 7, and Claims 2 and 7 are cancelled. No new matter has been added. This rejection is respectfully traversed.

As best understood by the Applicant, Fuji does not show, teach or suggest that the transmission path comprises a leaky transmission path, as in the amended Claim 1. Instead, Fuji includes a plurality of terminals having antenna arrays, as is typical in the art. See e.g. FIGs 1 and 2. For anticipation to be present under 35 U.S.C §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. Scripps Clinic & Res. Found. V. Genentech, Inc., 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the Claim must be inherent or expressly disclosed and must be arranged as in the Claim. Constant v. Advanced Micro-Devices, Inc., 7 USPQ.2d 1057 (Fed. Cir. 1988).

Therefore because Fuji fails to show, teach, or suggest that the transmission path comprises a leaky transmission path, Fuji does not appear to anticipate Claim 1. Claim 1 is believed to be allowable for at least these reasons.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carey (U.S. Pat. No. 4,866,732) in view of Fuji et al. This rejection is respectfully traversed.

With respect to Claim 1, as best understood by the Applicant, Carey and Fuji either alone or in combination do not show, teach or suggest a leaky transmission path arranged such that when main power waves are received by a wireless terminal unit, a time difference of the waves is in a guard section of the OFDM scheme, as in Claim 1.

Carey is directed to a typical wireless phone system including a leaky cable communicating with a transceiver through a spread spectrum. Column 4, Lines 30-42. Carey does not disclose or suggest using a time difference of main power waves from leaky cables in a guard section of an OFDM to reduce interference. Carey instead minimizes interference through a spread spectrum that deliberately varies frequency of the transmitted signals over a comparatively large segment of the electromagnetic radiation spectrum.

According to the Office Action, Fuji includes an OFDM system. Fuji however, does not include using a time difference of *main power* incoming waves from leaky cables in a guard section. Instead, Fuji includes receiving *desired* base station signals in a guard interval and later combining the signals as a composition of vectors of

isolated signals. Page 1242, Section II.B. The main power incoming waves correspond to sections of the leaky transmission path that are near to the wireless terminal units. Detailed Description of the Invention, Paragraph [0042]. Fuji appears to be receiving all multipath signals and determining a desired signal from all the multipath signals. Page 1242, Section II.B. Fuji does not appear to obtain main power signals from the received signals. Therefore, Fuji cannot use a time difference of main power incoming waves in a guard section because it does not appear to recognize main power incoming waves as such.

Therefore, Claim 1 is believed to be allowable because the Claim and the prior art differ. Namely, Fuji in view of Carey do not teach, disclose, or suggest that a time difference of main power incoming waves from leaky cables is used in a guard section of the OFDM scheme

Further, Applicant respectfully asserts that the Examiner has failed to clearly and particularly support his alleged motivation to combine these references using actual evidence as required. According to established mandates of the patent laws, “[t]o establish a prima facie case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.” M.P.E.P. § 2142. “There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” M.P.E.P. § 2143.01.

“The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the

nature of the problem to be solved.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000). The showing must be “clear and particular, and it must be supported by **actual evidence**.” *Teleflex, Inc. v. Ficosa North American Corp.*, 299 F.3d 1313, 1334, 63 U.S.P.Q.2d 1374, 1387 (Fed. Cir. 2002) (quoting *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999)) (emphasis added). It is respectfully submitted that the Patent Office has not made a legally sufficient showing of a motivation to combine based on actual, specific, evidence.

Fuji does not teach disclose or suggest application of the multi base station system to a leaky cable system as in the Claims. Fuji includes OFDM adaptive antenna arrays to reduce co-channel interference. No reason is provided why one skilled in the art would use a leaky cable instead of the adaptive antenna arrays. Further, Carey teaches away from such a combination. Carey includes a spread spectrum system, and

This technique causes the spectrum of the transmitted signal of each channel to be spread over a *greater amount of bandwidth than would be the case if time or frequency division multiplexing techniques were used*. Indeed, the signals of all of the channels used are spread over the same band.

Column 4, Line 65-Column 5, Line 3 (emphasis added). Carey is clearly designed and geared towards a spread spectrum system. Other systems, such as frequency division systems, have limitations that the spread spectrum system overcomes. In other words, the system of Carey would (according to Column 4, Line 65-Column 5, Line 3) be severely limited by the proposed combination, as time and frequency division multiplexing would limit bandwidth capabilities.

It therefore appears that the Office Action is using hindsight to reconstruct the Claims. According to M.P.E.P. § 2142, "[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of obviousness] must be reached on the basis of the facts gleaned from the prior art." Furthermore, according to M.P.E.P. § 2143.01, "[t]he mere fact that references can be . . . modified does not render the resultant combination obvious unless the prior art also suggests the desirability of [such modification]." *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Since the Patent Office has offered no proper support or motivation for combining Fuji and Carey, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." M.P.E.P. § 2145. Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

Therefore, Claim 1 is allowable for at least these reasons. Claim 4 is allowable for at least similar reasons as Claim 1. Claims 3, 5-6, and 8 ultimately depend from Claims 1 and 4 and are allowable for at least similar reasons.

NEW CLAIMS

Claims 9-17 have been added in accordance with the original Claims, Paragraphs [0042], [0043], and FIGs. 6, 7, 9, and 10 that illustrate various configurations for the leaky cable path. As mentioned, the new Claims are fully supported by the Application as filed and do not introduce new subject matter. The Examiner is respectfully requested to consider the new Claims in view of the remarks contained herein.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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